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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,416	03/02/2005	Matthew M Terry	00820-03	3094

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UNIVERSITY OF VIRGINIA PATENT FOUNDATION
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CHARLOTTESVILLE, VA 22902

EXAMINER	
JOHNSON, STEPHEN	
ART UNIT	**PAPER NUMBER**
3641	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/526,416	TERRY ET AL.	
	Examiner	Art Unit	
	Stephen M. Johnson	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-38* is/are pending in the application.

4a) Of the above claim(s) *10,11 and 15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,12-14 and 16-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-38* are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Applicant's election without traverse of species D, illustrated in fig. 4, in the reply filed on 5/1/2006 is acknowledged.

With regard to elected species D (fig. 4 illustration), the examiner is interpreting applicant's claims as follows:

open cell core structure;	21
top face sheet;	face sheet 22
bottom face sheet;	sandwich panel 23
projectile arresting layer coupled to the top face sheet;	ceramic sheet 51
fragment catching layer coupled to the bottom face sheet;	fabric 71
projectile arresting structure disposed inside the core;	24
fragment catching structrure disposed inside the core;	25
at least one truss unit; and	26
at least one textile layer.	27

Using the above, interpretation, claims 1-9, 12-14, and 16-38 read on the elected invention/species and an action on these claims follows.

Claims 10-11 and 15 are withdrawn from consideration as being directed to non-elected embodiments or species. The elected species D (illustrated in fig. 4) lacks a truss unit having leg members (see claim 10) and a core that is an open cell foam (see claim 15).

With regard to the argument that claim 12 claims "a separate textile layer", note that claim 12 does not contain this claim language. Claim 12 does claim "textile layer comprised of at least one array of intersecting structural support members forming apertures" and this is illustrated in fig. 4 via designation 27.

2. Claims 1-2, 5-9, 12-14, 16-25, 30-31, and 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, last line; in claim 2, line 1; in claim 5, line 1; and in claim 30, line 1; the word "couple" should be coupled. In claim 22, line 3, the word "or" should be (and).

Claims 18-20 and 23-25 contain the trademark/trade name "Kevlar", "Spectra", "S2", and "Zylon". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a constituent material of the protection structure and, accordingly, the identification/description is indefinite.

3. Applicant's arguments are addressed as follows. Applicant has argued that the conditions of MPEP 608.01(v) (listed below) have been met.

608.01(v) [R-2] Trademarks and Names Used in Trade

The expressions "trademarks" and "names used in trade" as used below have the following meanings:

Trademark: a word, letter, symbol, or device adopted by one manufacturer or merchant and used to identify and distinguish his or her product from those of others. It is

a proprietary word, letter, symbol, or device pointing distinctly to the product of one producer.

Names Used in Trade: a nonproprietary name by which an article or product is known and called among traders or workers in the art, although it may not be so known by the public, generally. Names used in trade do not point to the product of one producer, but they identify a single article or product irrespective of producer.

Names used in trade are permissible in patent applications if:

(A) Their meanings are established by an accompanying definition which is sufficiently precise and definite to be made a part of a claim, or

(B) In this country, their meanings are well-known and satisfactorily defined in the literature.

Condition (A) or (B) must be met at the time of filing of the complete application.

In response, the examiner can see no evidence to support the conclusion that either condition (A) or condition (B) were met at the time of filing. Further, the examiner can find no evidence that the product to which the trademark refers is set forth in language in the specification (as originally filed) that clearly identifies a fixed and definite meaning for the trademark.

4. The amendment filed 10/13/2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: In the insertion on page 6, lines 18-14,

addition of the phrase "or any combination thereof" is unsupported by the application as originally filed.

Applicant is required to cancel the new matter in the reply to this Office Action.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 8/1, 18/1, 19/1, 20/1, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al. (640).

Brown et al. disclose a protection structure and associated method for making comprising:

a) an open cell core structure;	16, 20
b) a top face sheet;	22
c) a bottom face sheet;	18 (adjacent 22b)
d) a projectile arresting layer coupled to the top face sheet;	12
e) fragment catching layer coupled to a bottom face sheet;	18 (multiple layers)
and	
f) at least one truss unit.	support walls of 20

With regard to the method claims, the steps of "providing", "coupling", and "disposing", these steps are inherently met since the structure directed to the top and bottom face sheets are illustrated as being coupled (see lone fig.); the open cell core structure is clearly provided (see

line fig. (20)); and the projectile arresting layer and fragment catching layer are clearly disposed coupled to the appropriate face sheets (see lone fig. (12, 22; 18)).

7. Claims 1-9, 12-14, 16, 18-21, and 23-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Groves (661).

Groves discloses a protection structure and associated method for making comprising:

a) an open cell core structure;	34, 35
b) a top face sheet;	32
c) a bottom face sheet;	33 (nearest 35)
d) a projectile arresting layer coupled to the top face sheet;	31
e) fragment catching layer coupled to a bottom face sheet;	33 (multiple layers)
f) a projectile arresting structure disposed inside the core structure;	46
g) a fragment catching structure disposed inside the core structure;	37, 38
h) at least one truss unit;	support walls of 34, 35
i) at least one textile layer of intersecting support members forming apertures;	37

With regard to the method claims, the steps of "providing", "coupling", and "disposing", are inherently met. The structure directed to the top and bottom face sheets are illustrated as being coupled (see fig. 1); the open cell core structure is clearly provided (see fig. 1 (34, 35)); and the projectile arresting structure and fragment catching structure are clearly disposed inside

the core (see fig. 1 (46, 37, 38)); the projectile arresting layer is clearly disposed as being coupled to the top face sheet (see fig. 1 (31, 32 and col. 7, lines 4-9)); and the fragment catching layer is clearly disposed as being coupled to the bottom face sheet (see fig. 1 (33)).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groves (661) in view of Tippett (023).

Groves (661) applies as recited above. However, undisclosed is a fabric layer that of a ceramic fabric material. Tippett (023) teaches a fabric layer that is a ceramic fabric (see para. [0040]). Applicant is substituting one type of fabric layer for another as explicitly encouraged by the secondary reference (see para. [0040] of Tippet). It would have been obvious to a person of ordinary skill in this art the time of the invention to apply the teachings of Tippet to the Grove protection structure and have a protection structure with a different type of protective fabric layer.

10. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877

and whose e-mail address is (Stephen.Johnson@uspto.gov). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.

STEPHEN M. JOHNSON
PRIMARY EXAMINER

Stephen M. Johnson
Primary Examiner
Art Unit 3641

SMJ
March 16, 2007